

DERWENT- 2003-559993  
ACC-NO:  
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WEEK:

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**TITLE:** Lithium secondary battery by use of composite material  
covered with nano surface as active material

**INVENTOR:** CHEN L; LIU L ; WANG Z

**PATENT-ASSIGNEE:** INST PHYSICS CHINESE ACAD SCI[PHYSN]

**PRIORITY-DATA:** 2001CN-134448 (November 2, 2001)

**PATENT-FAMILY:**

PUB-NO	PUB-DATE	LANGUAGE
CN <u>1416189</u>	A May 7, 2003	ZH
CN 1208866	C June 29, 2005	ZH

**APPLICATION-DATA:**

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
CN 1416189A	N/A	2001CN-134448	November 2, 2001

**INT-CL-  
CURRENT:**

TYPE	IPC	DATE
CIPS	<u>H01</u> <u>M</u> <u>10/36</u>	20060101
CIPS	<u>H01</u> <u>M</u> <u>10/40</u>	20060101
CIPS	<u>H01</u> <u>M</u> <u>4/36</u>	20060101
CIPS	<u>H01</u> <u>M</u> <u>4/48</u>	20060101
CIPS	<u>H01</u> <u>M</u> <u>4/58</u>	20060101

**ABSTRACTED-PUB-NO:** CN 1416189 A

**BASIC-ABSTRACT:**

NOVELTY - The lithium secondary battery consists of the positive electrode, the negative electrode, the electrolyte solution or the polymer dielectric or the membrane of the solid electrolyte, the

affluxion body, the battery case and the lead wire. The active material of the positive electrode is nano modified composite material covered in the surface. The negative electrode is the material capable of storing lithium.

The composite material covered is one or more substance among semi-metals, oxides or salts with the grain diameter being as 0.1-200 nm and the thickness 0.5-200 nm. The invented battery features high reversible capacitance, good periodicity, safety and reliability. The battery can be manufacture to multiple specifications such as the button type or the columned type.

**TITLE-** LITHIUM SECONDARY BATTERY COMPOSITE MATERIAL COVER NANO  
**TERMS:** SURFACE ACTIVE

**DERWENT-CLASS:** A85 L03 X16

**CPI-CODES:** A12-E06; L03-E03;

**EPI-CODES:** X16-B01F1; X16-E01;

**SECONDARY-ACC-NO:**

**CPI Secondary Accession Numbers:** 2003-151080

**Non-CPI Secondary Accession Numbers:** 2003-445116